DOCUMENT RESUME

ED 423 550 CS 216 520

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TITLE Problem-Based Learning in Language Instruction: A Constructivist Model. Eric Digest.
INSTITUTION ERIC Clearinghouse on Reading, English, and Communication, Bloomington, IN.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO EDO-CS-98-05
PUB DATE 1998-00-00
NOTE 4p.
CONTRACT RR93002011
AVAILABLE FROM ERIC Clearinghouse on Reading, English, and Communication, Indiana University, 2805 E. 10th Street, Suite 150, Bloomington, IN 47408-2698.
PUB TYPE ERIC Publications (071) -- ERIC Digests in Full Text (073)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Constructivism (Learning); Elementary Secondary Education; Inquiry; *Language Acquisition; *Learning Processes; Models; *Teacher Role; Theory Practice Relationship
IDENTIFIERS ERIC Digests; Facilitators; *Problem Based Learning

ABSTRACT

This Digest discusses Problem-Based Learning (PBL), a method developed by H.S. Barrows (1986), and originally created to prepare medical students for real-world problems by letting them solve medical problems based on real cases. The Digest contends that PBL can situate language learning in the real world by posing problems like those found in real life and which are relevant to the learners' situations. The Digest considers the teacher's role as a facilitator in PBL and provides a model of the PBL process. It points out that, although several research groups have developed full PBL curricula, language teachers may find PBL more useful as one method among many, since the inquiry process takes time and does not always meet other curricular demands. (NKA)

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ERIC Digest
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Problem-Based Learning in Language Instruction: A Constructivist Method

by Mardziah Hayati Abdullah

Theoretical Basis of Problem-Based Learning

The assumption of non-constructivist approaches to learning has been that as long as learners are provided with knowledge, they will be able to use it. Education based on that assumption is thus primarily concerned with transferring substance to the learner, and little importance is placed on the role of the learning activity. From a constructivist view, on the other hand, learning is the process of constructing knowledge - not merely obtaining it - in social environments (Brooks & Brooks, 1993). The theory of situated learning consistent with this view asserts that what we come to know and understand is fundamentally a product of the learning situation and the nature of the learning activity. Learning tasks should thus, as far as possible, be embedded in the target context and require the kind of thinking that would be done in real life (Brown et al., 1989; Lave & Wenger, 1991).

One method which supports learning in the target domain is Problem-Based-Learning (PBL). It was created by Barrows (1986) as an alternative instructional method to prepare medical students for real-world problems by letting them solve medical problems based on real-life cases, rather than having them learn mainly through lectures which taught the sciences out of context. The students worked in teams, and were assigned a medical practitioner who acted as facilitator. This practice was consistent with the assumption that learning occurs not in the "heads of individual speakers" but in the fields of social interaction (Lave & Wenger, 1991), where social partners also determine what and how someone learns (Colé & Engestrom, 1993; Salomon, 1993). It was argued that PBL made learning more applicable by encouraging students to think and act like they would in the real world of medicine. This same method, Duffy and Cunningham (1997) believe, can be applied in other domains.

PBL in language learning

The behaviorist trend in language instruction has been to define desired goals independently of the learners and situation, present language in a structured, linear fashion, then attempt to reinforce the content through decontextualized practice. Learners end up knowing about the language but not how to use it (Short, Harste & Burke, 1996). The constructivist view, in contrast, is that language learners should develop their understanding of the conventions of language use by engaging in the kinds of language activity found in real life, and not by learning lists of rules.

PBL can situate language learning in the real world. By posing language learners problems like those found in real life, teachers can bridge the gap between language use in the real world and what Dyson calls the 'fake' world of school. Problems used in PBL are *ill-structured*, that is, they do not have clear-cut, absolute answers (Spiro et al., 1991; Perkins, 1991), and they reflect the complexity of real-world problems (as opposed to short-answer, true-false, and multiple-choice questions). They are also relevant to the learners' situations. In addition, they require learners to explore resources other than the teacher, including reference materials and community members, and to draw on knowledge from various subject areas such as mathematics, geography, and science. During the inquiry process that learners go through to develop solutions, they need to use language to obtain and communicate information, express opinions, and negotiate, as they would in occupational domains. As they document discussions and decisions, consult reference materials, talk to others, or present findings, they learn to listen, speak, read, and write effectively. They develop vocabulary, learn rules of grammar and conventions of social language use, and integrate the use of different sign systems. In short, they construct an understanding of language as it is used in real-world contexts.

The language teacher's role in PBL

In a PBL setting, teachers need to decenter their roles as the source of knowledge by consciously refraining from giving only right-wrong answers, and helping students observe how other resources can teach them about effective language use. Acting as *facilitators* and *cognitive coaches* (Barrows, 1992; Duffy & Cunningham, 1997), teachers need to ask questions such as: *Why? What do you mean?* and *How do you know that is true?* (Savery & Duffy, 1994, p.12) instead of content-laden questions. The purpose is to challenge the students' reasoning and to help them consider carefully each step they take in their inquiry. By asking such questions, facilitators also model critical thinking, with the purpose of stepping back and letting students begin to ask themselves and their peers those same types of questions. As facilitators, teachers

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also design problems and provide critical resources needed for the inquiry process.

The PBL process: a brief example

Savery and Duffy's (1995) model of the PBL process proposes some steps that a facilitator could follow:

(i) Facilitator identifies or designs an ill-structured problem or task relevant to the learner. *(e.g., Vandalism is on the rise in school. Because it is a large school with several buildings, lockers have been broken into, personal belongings stolen, furniture scratched, and walls defaced even during school hours, without anyone seeing the culprits. Among the safety measures the school plans to take are: students will no longer be allowed to leave the cafeteria during lunch, and there will be no outside recess so that no student can wander around without being seen. Hall passes will also be limited. Students will have to leave their bags in their lockers as soon as they get to school so that no one can carry around dangerous articles. You find these rules unreasonable and potentially ineffective. You feel that innocent students will be inconvenienced, and that there must be better measures. What can you do?)*

(ii) Facilitator presents the problem to the learners.

(iii)Learners, in their own groups, collaboratively

- generate working ideas or possible solutions *(e.g., write a petition, suggest alternative measures, form volunteer student patrols, survey students' views and present them).*
- identify available information related to the problem *(e.g., school policies, sample petition, sections of the school most vandalized).*
- identify learning issues (things they need to find out, *e.g., survey formats, how to form patrols, what other schools may be doing)*
- identify resources to look up or consult *(e.g., home pages of other schools, friends in the police force, sample survey).*
- assign tasks to the various group members *(i.e. who is responsible for working on each learning issue.).*
- gather information *(e.g. visit Web sites, interview students and community members, draft a petition.).*
- propose solution(s).

Some of the steps in (iii) may be revisited. Ideas, learning issues, and solutions may differ among groups, and the class can discuss the viability of each proposed solution. Throughout the process, learners will need to act as scribes or recorders to take notes.

PBL and curriculum

Although several research groups have developed full PBL curricula, language teachers may find PBL more useful as one method among many, as the inquiry process takes time and may not always meet other curricular demands. A better understanding of PBL and the facilitator's role may help teachers assess the applicability of the method. Useful information may be found at the following web sites:

Center for Problem-Based Learning (1998) (http://www.imsa.edu/team/cpbl/cpbl.html)

Problem-Based Learning at the University of Delaware (1998) (http://www.udel.edu/pbl/)

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This publication was prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract No RR93002011. Contributors undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view or opinions, however, do not necessarily represent the official views or opinions of the Office of Educational Research and Improvement.